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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/528,004

03/14/2005

Qin Gang

4631

7590

11/10/2005

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UNITED KINGDOM

EXAMINER

PRESTON, ERIK D

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 11/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/528,004

Applicant(s)

GANG, QIN

Examiner

Erik D. Preston

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Claim Objections***

Claim 8 is objected to because of the following informalities: In the 2<sup>nd</sup> line of the claim, the phrase "...the electrically generating unit..." lacks proper antecedent basis and, for examination purposes, will be interpreted as saying "...the electrically generating system..." Appropriate correction is required.

Claims 9 & 10 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot be dependent upon another multiply dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pedersen (WO 01/33700) in view of Lin (US 5606210).

With respect to claim 1, Pedersen teaches a tumbling magnet electricity generating system for supplying electricity to an electrical device, comprising: A tumbling chamber (the coil support as seen in Fig. 10), a first magnet (Fig. 10, #2) arranged within the tumbling chamber, a magnetic material (Fig. 10, #1) arranged externally to the tumbling chamber, and a coil (Fig. 10, #3) looped around the tumbling

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chamber adapted such that the tumbling chamber is of sufficient dimensions to allow the first magnet to freely tumble (about its axis) wherein on proximal relative motion of said first and second magnets, the mutual interaction of the magnetic fields is sufficient to cause the first magnet to tumble in the tumbling chamber, generating a varying magnetic flux through the coil such that a corresponding potential difference is formed across opposite ends of the coil, generating electricity to run an electric appliance, but it does not teach that said magnetic material is specifically a magnet. However, Lin teaches a generating system comprising first and second magnets mutually interacting to cause the tumbling of the first magnet (as seen in Fig. 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to replace the magnetic material of Pedersen with the magnet of Lin because the magnets of Lin would produce a stronger magnetic field thereby inducing more electricity in the coil of Pedersen, and also as merely a substitution of well-know generating apparatuses.

With respect to claim 2, Pedersen in view of Lin teaches the system of claim 1, and Pedersen teaches that the tumbling chamber is substantially of non-magnetic material.

With respect to claim 3, Pedersen in view of Lin teaches the system of claim 1, wherein the coil comprises an insulated wire (it is inherently insulated) wound around the outer surface of the tumbling chamber, the opposite ends of the coil being electrically connected to terminals of an electric appliance, but it does not specifically teach the coils being made of copper. However, copper coils were extremely well known in the art at the time of the invention. It would have been obvious to one of

ordinary skill in the art to form the coils of Pedersen from copper since it is the most commonly used material in the art for forming electromagnetic coils.

With respect to claims 4 & 5, Pedersen in view of Lin teaches the system of claim 1, wherein the first magnet and the tumbling chamber are both substantially known geometric shapes.

With respect to claim 6, Pedersen in view of Lin teaches the system of claim 1, and Pedersen teaches a bicycle comprising said system for providing illumination.

With respect to claim 7, Pederson in view of Lin teaches the system of claims 1 & 6, and Pedersen teaches that the second magnet is fixedly attached to a wheel of a bicycle.

With respect to claim 8, Pedersen in view of Lin teaches the system of claims 1 & 6, and Pedersen teaches that the electricity generating system containing the first magnet is fixedly attached in a stationary and non-rotating manner relative to a part of a bicycle frame by a supporting member (of the type as seen in Fig. 1).

With respect to claim 9, Pedersen in view of Lin teaches the system of claim 1, and Pedersen teaches that on rotation of a bicycle wheel the second magnet passes proximal to the first magnet once during each rotation of the wheel (as seen in Fig. 1).

With respect to claim 10, Pedersen in view of Lin teaches the system of claim 1, and Pedersen teaches that a LED (Page 5, Lines 14 & 15) is electrically connected to the coil of the tumbling magnet electricity generating system wherein a rotation of the first magnet causes a varying electric current to flow through the coil and illuminate the LED.


**Conclusion**

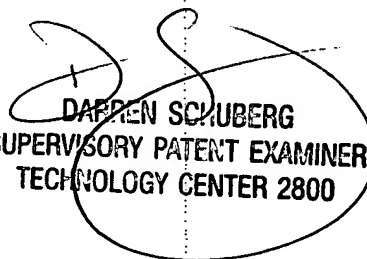
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 4360771, US 5590946, US 6822357 & US 2003/0197433.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erik D. Preston whose telephone number is 571-272-8393. The examiner can normally be reached on Monday through Friday 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on 571-272-2044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
11/02/2005

  
DARREN SCHUBERG  
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